

ABSTRACT

The invention is a method of removing sulfur from a hydrocarbon feed using the steps of dissolving metallic sodium in a solvent and combining the sodium/solvent solution with a liquid hydrocarbon feed containing an organosulfur species. The pressure of combination is
5 above the vapor pressure of the solvent. The combined hydrocarbon feed and solvent solution are placed in a low pressure environment to vaporize the solvent. The resulting stream is combined with hydrogen gas and this stream is heated and pressurized to form a liquid hydrocarbon product containing sodium sulfide. This product is then cooled, and the sodium sulfide is extracted.